

Title (en)

SINGLE-SIDED LIGHT-ACTUATED MICROFLUIDIC DEVICE WITH INTEGRATED MESH GROUND

Title (de)

EINSEITIGE LICHTAKTIVIERTE MIKROFLUIDISCHE VORRICHTUNG MIT INTEGRIERTEM GITTERBODEN

Title (fr)

DISPOSITIF MICROFLUIDIQUE SIMPLE FACE, ACTIONNÉ PAR LA LUMIÈRE, À TERRE À MAILLES INTÉGRÉE

Publication

EP 3227025 B1 20190327 (EN)

Application

EP 15825668 A 20151204

Priority

- US 201462088532 P 20141205
- US 2015064074 W 20151204

Abstract (en)

[origin: WO2016090295A1] Single-sided optoelectrowetting (SSOEW)-configured substrates are provided, as well as microfluidic devices that include such substrates. The substrates can include a planar electrode, a photoconductive (or photosensitive) layer, a dielectric layer (single-layer or composite), a mesh electrode, and a hydrophobic coating. Fluid droplets can be moved across the hydrophobic coating of such substrates in a light-actuated manner, upon the application of a suitable AC voltage potential across the substrate and the focusing of light into the photoconductive layer of the substrate in a location proximal to the droplets. Walls can be disposed upon the substrates to form the microfluidic devices. Together the walls and substrate can form a microfluidic circuit, through which droplets can be moved.

IPC 8 full level

B01L 3/00 (2006.01)

CPC (source: CN EP US)

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